

CLAIMS

1. Appliance for cooking food articles, which comprises:
 - a) a container, for receiving an amount of the food articles to be cooked and an amount of cooking liquid sufficient to only partially immerse the food articles therein, said container having a discharge end comprising an opening for discharging the cooked food articles and cover means for closing said opening during the cooking operation;
 - b) a helical paddle;
 - c) a shaft on which said paddle is mounted, which shaft is rotatably supported by said container;
 - d) a motor for driving said shaft;
 - e) means for causing said motor to drive said shaft in either the cooking direction or the discharging direction; and
 - f) support means for supporting said container in a slightly slanted position wherein the front end of said shaft is slightly higher than the rear end thereof.
2. Appliance according to claim 1, wherein the support means are chosen from the group consisting of a separate support structure, a support surface, or a structural part of the container.
3. Appliance according to claim 1, wherein the container is slanted by an angle comprised between and ... degrees.
4. Appliance according to claim 1, further comprising a conical container at the drive end of the paddle shaft, for collecting the residual cooking liquid through a conveniently shaped bore, after the cooking process is done, by reversing the direction of rotation of said paddle shaft.

5. Appliance according to claim 1, wherein the container comprises a main cylindrical portion and a front portion which is frusto-conical, tapering towards the front end.

6. Appliance according to claim 1, further comprising heating means which may be, but need not be, a structural component of the appliance.

7. Appliance according to claim 1, wherein the container comprises an upper and a lower half, connected so that the upper part may be removed to allow the removal of the paddle with the residual cooking liquid after the cooking is done.

8. Appliance according to claim 7, wherein the two halves are separated substantially along connecting lines that are parallel to the paddle shaft, each half being symmetric with respect to a vertical plane passing through said shaft.

9. Appliance according to claim 1, further comprising an opening for discharging the cooked food articles at the discharge end thereof and cover means for closing said opening during the cooking operation.

10. Appliance according to claim 1, wherein the discharge opening is provided in the lower half of the container and is closed by a cover which can be displaced from a closing position, in which it closes said opening, to a discharge position, in which it receives the cooked food articles discharged from the container.

11. Appliance according to claim 10, wherein the cover can be displaced from a closing position to a discharge position by a pivotal displacement.

12. Appliance according to claim 10, wherein the cover can be detached from the container and used as a basket to transport the cooked food articles.

13. Appliance according to claim 4, wherein the conical container is solid with the paddle shaft and this latter is hollow and provided with an axial bore communicating with the inside of said conical container, so that residual cooking liquid received in said conical container may be discharged after the paddle has been removed.

14. Appliance according to claim 1, further comprising a heater receptacle adapted to contain an amount of liquid, an electrical resistance, and optionally a thermometer, which heater receptacle transmits heat to the container and to the cooking liquid therein, by heat conduction.

15. Appliance according to claim 1, wherein the container is provided with vent openings 30 to discharge vapors and steam that may form in the cooking.

16. Appliance according to claim 1, wherein the container is provided with a viewing opening 31, closed by a transparent closure, to permit to inspect what occurs within the container.

17. Appliance according to claim 1, further comprising a hopper located above container 10 for charging food articles into said container while avoiding contact to hot components or contents or exposure to high temperatures.

18. Appliance according to claim 5, wherein the outer diameter of the helical paddle is smaller in correspondence to the frusto-conical portion of the container than in correspondence to the main cylindrical portion.

19. Appliance according to claim 1, further comprising a motor and drive connections between the motor shaft and the paddle shaft for causing the motor to drive the paddle shaft.

20. Appliance according to claim 19, wherein the drive connections comprise a U-shaped seat at the end of the motor shaft and an end of the paddle shaft that fits into said U-shaped seat.

21. Appliance according to claim 19, further comprising a microswitch to assure that the motor shaft should stop in the position in which the bottom of the U-shaped seat is substantially horizontal.

22. Cooking method can be implemented, which comprises the following steps:

- I. Providing a cooking appliance as defined in claim 1;
- II. Introducing an amount of cooking liquid into said appliance, which amount is sufficient to only partially immerse the food articles which are intended to be cooked;
- III. Heating the cooking liquid to a temperature sufficient to cook said food articles;
- IV. Introducing the food articles to be cooked into said appliance;
- V. Rotating the paddle of said appliance in such a direction as to urge the food articles towards the drive end of said appliance, concurrently tumbling the food articles alternatively to immerse them into the cooking liquid and to raise them out of said liquid; and
- VI. When the cooking is done, reversing the direction of the rotation of driving said paddle, whereby to urge the food articles out of the cooking appliance into a collecting container, which is preferably a displaced portion of the container itself;

VII. Thereafter, removing said paddle and paddle shaft and discharging any residual liquid retained in or in communication with said shaft.

23. Cooking method according to claim 22, for producing crispy fried food articles retaining a minimum quantity of fry oil.

24. Cooking method according to claim 22, for steaming food articles of various types, including fish.

25. Cooking method according to claim 22, for popping corn with a minimum quantity of oil.

26. Cooking method according to claim 22, wherein the cooking liquid is water.

27. Appliance for cooking food articles, substantially as described and illustrated.

28. Cooking method, substantially as described and illustrated.